

Professional Audio Service Bulletin

3M

Bulletin No. #12B (Supersedes Bulletin #12A dated January, 1975)
Date July, 1980

SUBJECT: M-79 Conversion to 14" Reels

APPLICABLE TO: All M-79 Professional Audio Recorders 8, 16 and 24 Tracks

PURPOSE: Convert M-79 Recorders to 14" Reel Operation

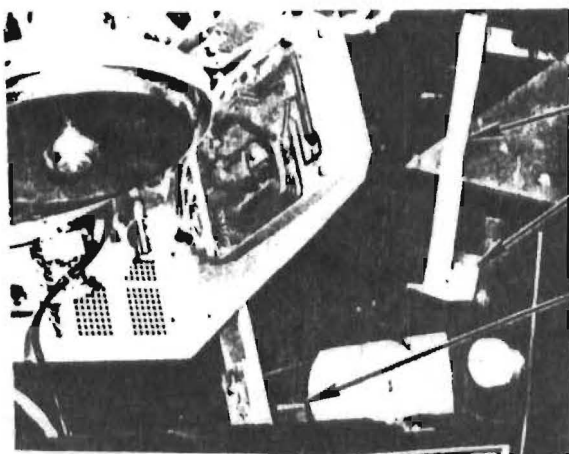
MATERIAL REQUIRED:

<u>COMPONENT</u>	<u>DESCRIPTION</u>	<u>MINCOM CATALOG NO.</u>	<u>QUANTITY</u>
Qx	2N3643	83-1530-2234	1
Ra (See Table Pg. 5)	470 ohms	83-9520-2116	1
	1K ohm	83-9520-2088	1
	2K ohms	83-9520-2148	1
	20K ohms, 1/4W	83-9520-2162	1
Rb	Kit, Conversion To 14" Reels	83-5990-1595	1

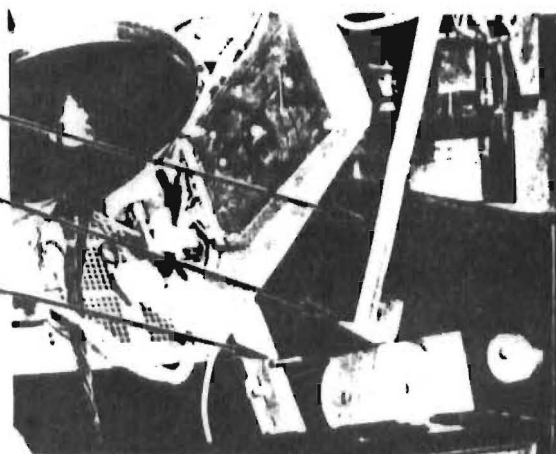
- CAUTION: 1) Use of 14" reels is not recommended for recording studio operation.
2) When reels over 10 1/2" are used, operate the recorder at 7 1/2 or 15 IPS. Operation at 30 IPS with the over 10 1/2" reel will result in poor tape handling.

PROCEDURE:

1. Raise the tape transport and observe the position of the support bracket and the stop post. If they appear as in figure 1, proceed with step 3. If they appear as in figure 2, proceed with step 2.

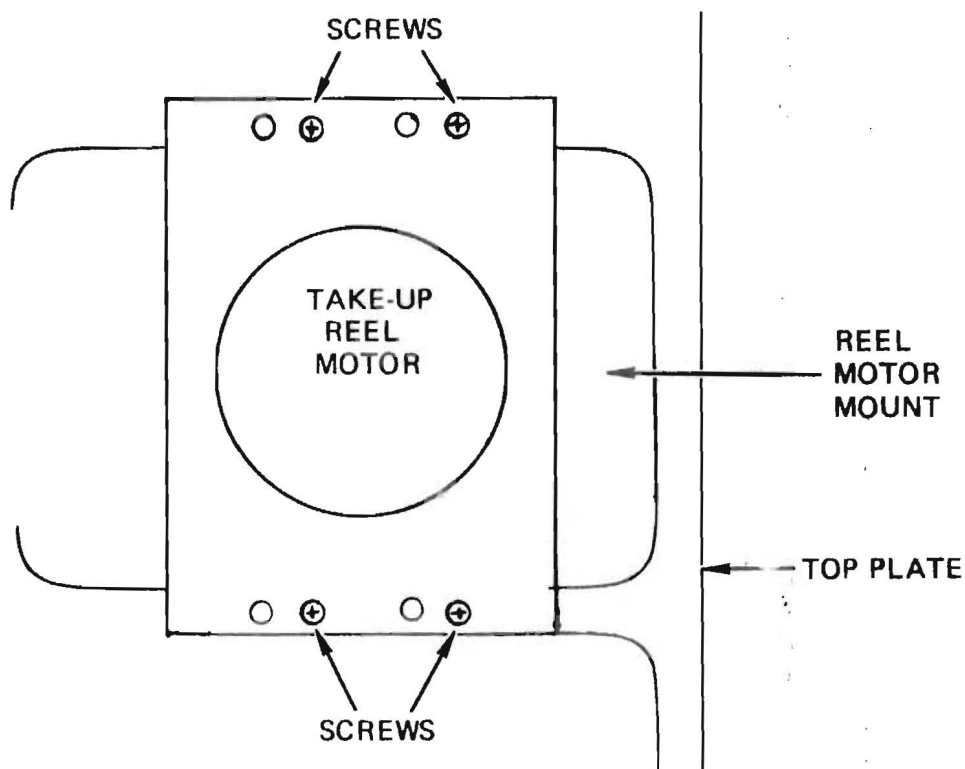


Correct Positions
FIGURE 1



Older Model Positions
FIGURE 2

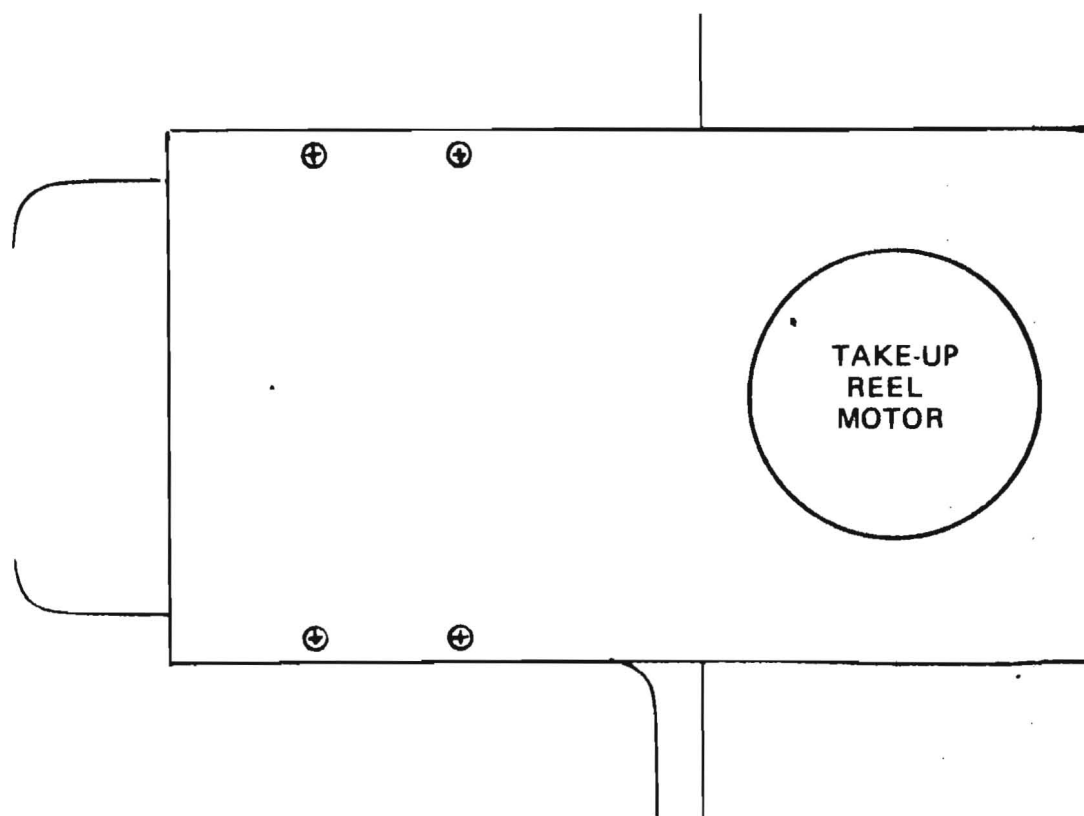
2. Modify the recorder to match figure 1 as follows:
 - a. Relocate support bracket using the template (figure 5) to locate the holes to be drilled.
 - b. Relocate the stop post so it is centered approximately 1 inch behind the pulley (see figure 1) by drilling a 1/4 inch hole and glueing in post.
 - c. Remove existing arm and replace it with a new 11 inch arm (part of conversion kit).
3. Disconnect supply and take-up motor connectors from wiring connectors; remove the four (4) screws holding each reel motor mounting plate and remove motor assembly (see figure 3).
4. Install motors on new motor mounting brackets (supplied in kit).
5. Install reel motor assemblies on recorder top plate (see figure 4). Install harness assemblies (supplied with kit) between respective motor assembly connector and wiring connectors.
6. Install new tape transport cover (supplied with kit).



Existing Take-up Reel Motor Mount *

FIGURE 3

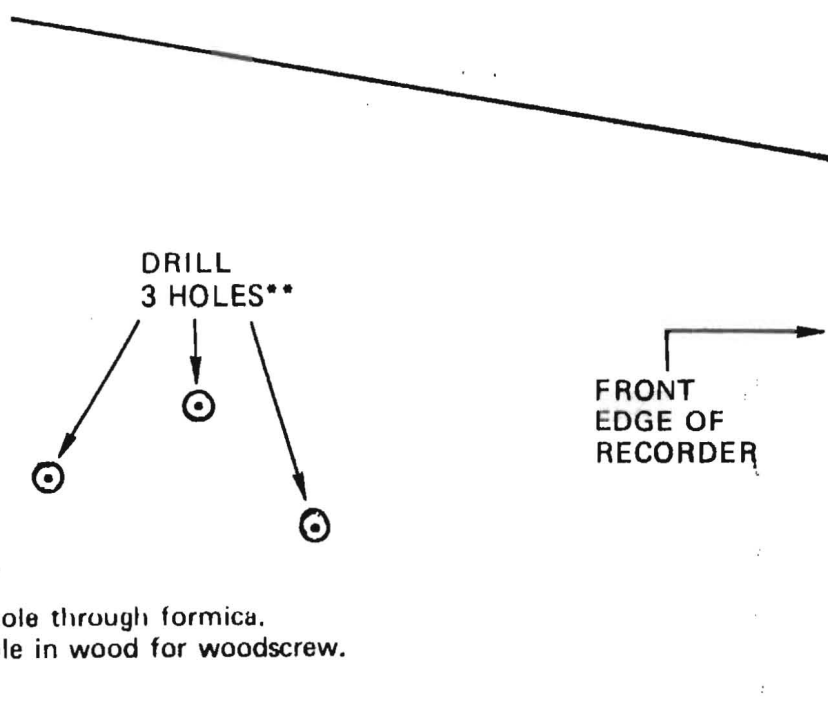
* Supply reel mount is identical to take-up reel mount.



New Reel Take-Up Motor Mount*

*Supply reel mount is identical
to take-up reel mount.

FIGURE 4



- ** 1) Drill 3/16" hole through formica.
2) Drill 1/8" hole in wood for woodscrew.

Template for Bracket Remount
FIGURE 5

7. Modify Capstan Servo p.c. board (see figure 6).
 - a. Connect resistor Rb between GROUND and the base of Transistor Qx.
 - b. Connect resistor Ra between the junction of R17 and C7 (junction nearest to p.c. board side) and the junction of Rb and Qx base.
 - c. Connect the emitter of Qx to ground.
 - d. Connect the collector of Qx to the junction of R28 and IC1B pin 13.
8. Adjust capstan servo p.c. board pulse width and speed if necessary.
9. Perform reel alignment procedure.

NOTE: In the event replacement of items supplied in the conversion kit becomes necessary, use the following information for ordering. The conversion kit contains the following:

1. Plate, reel motor	83-3330-0523	2 ea.
2. Cover, tape transport	83-3310-1925	1 ea.
3. Harness Assy (Pickup)	83-4570-0946	1 ea.
4. Harness Assy (Supply)	83-4570-0947	1 ea.

NOTE: If your M79 is configured as shown in Fig 2, you must order the shorter support arm separate from the conversion kit.

Arm, Support (11 inches)	83-3340-0895	1 ea.
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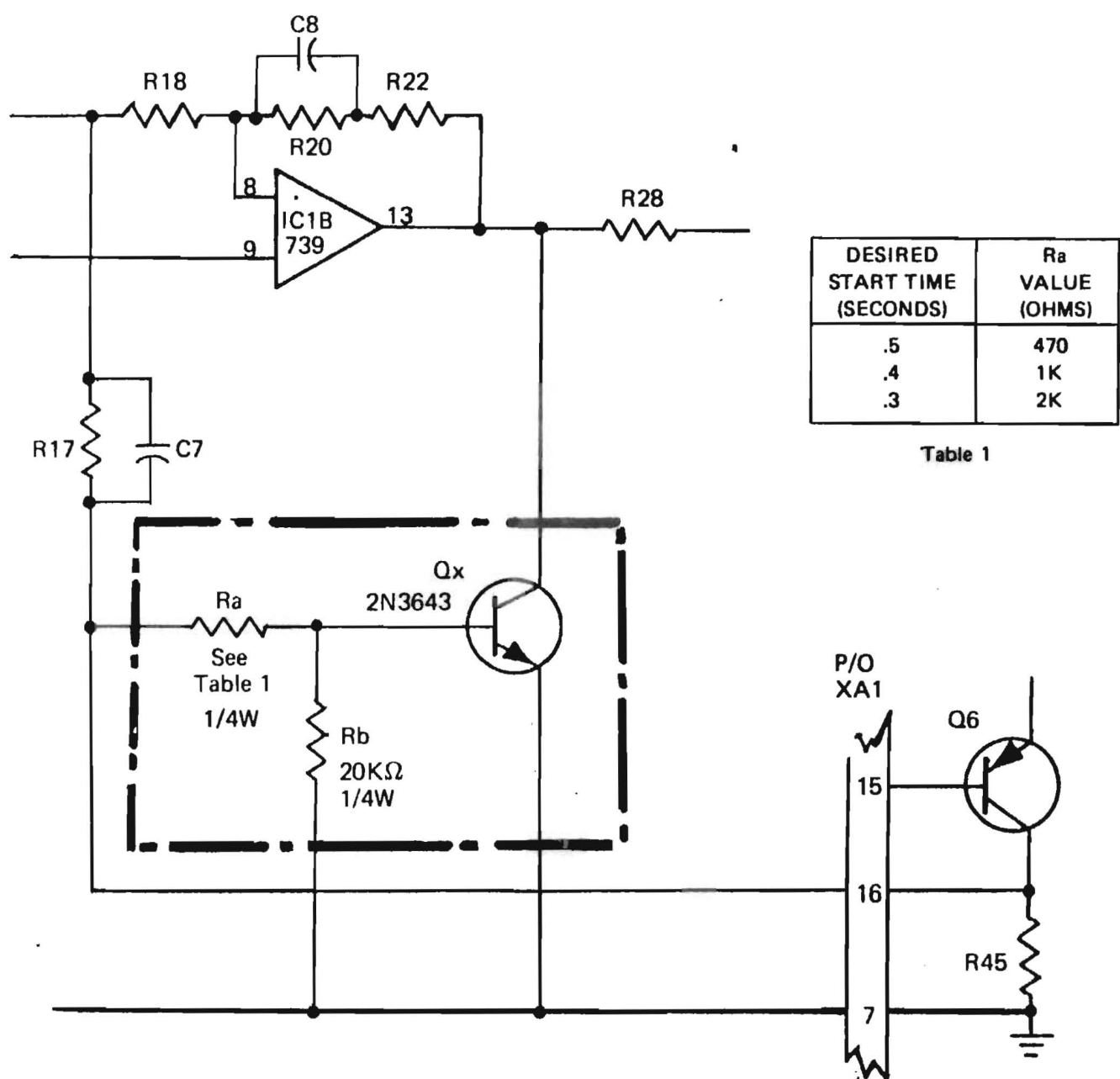


FIGURE 6

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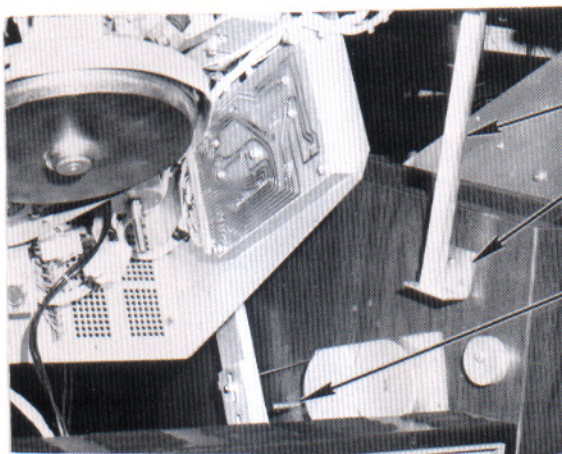
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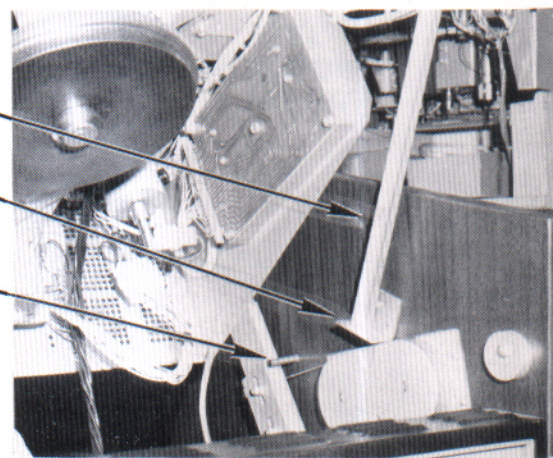
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PROCEDURE:

1. Raise the tape transport and observe the position of the support bracket and the stop post. If they appear as in figure 1, proceed with step 3. If they appear as in figure 2, proceed with step 2.

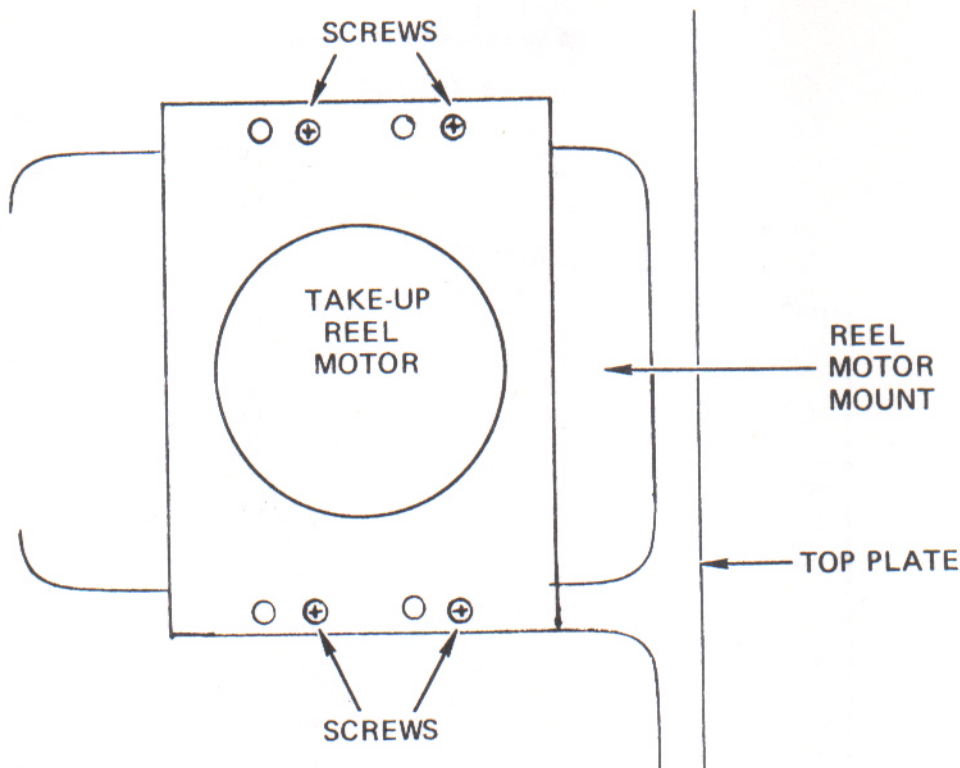


Correct Positions
FIGURE 1



Older Model Positions
FIGURE 2

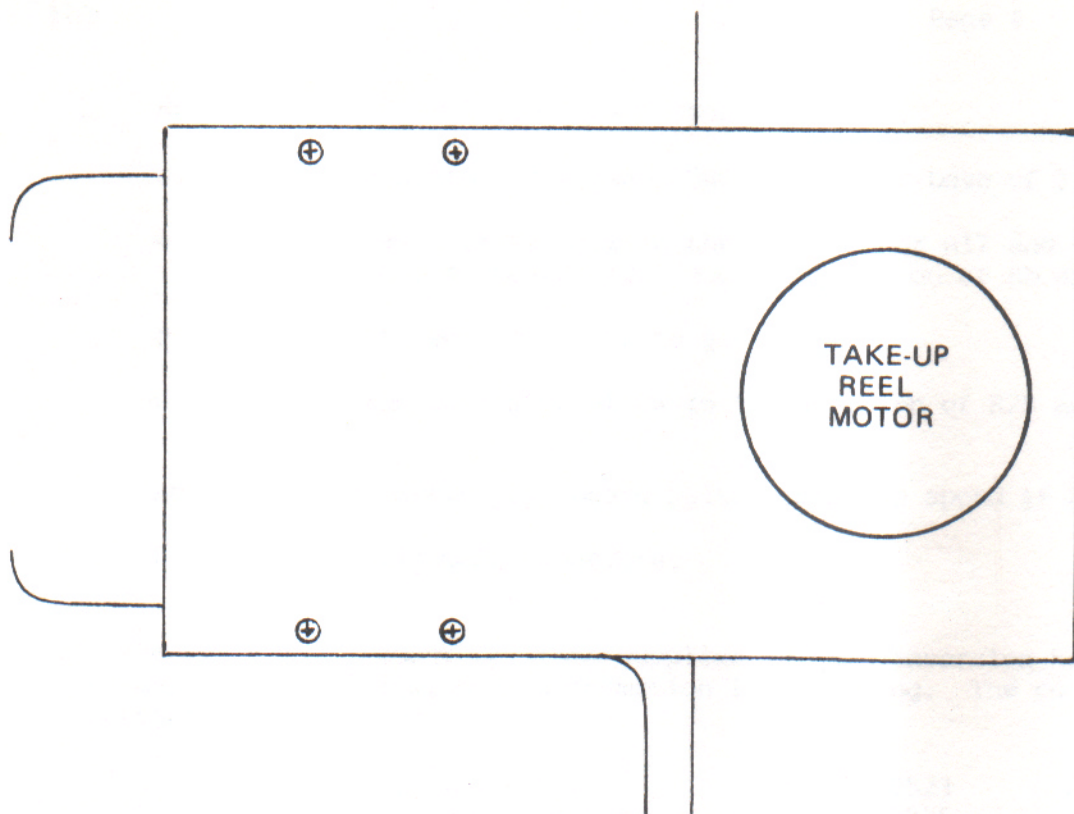
2. Modify the recorder to match figure 1 as follows:
 - a. Relocate support bracket using the template (figure 5) to locate the holes to be drilled.
 - b. Relocate the stop post so it is centered approximately 1 inch behind the pulley (see figure 1) by drilling a 1/4 inch hole and glueing in post.
 - c. Remove existing arm and replace it with a new 11 inch arm (part of conversion kit).
3. Disconnect supply and take-up motor connectors from wiring connectors; remove the four (4) screws holding each reel motor mounting plate and remove motor assembly (see figure 3).
4. Install motors on new motor mounting brackets (supplied in kit).
5. Install reel motor assemblies on recorder top plate (see figure 4). Install harness assemblies (supplied with kit) between respective motor assembly connector and wiring connectors.
6. Install new tape transport cover (supplied with kit).



Existing Take-up Reel Motor Mount *

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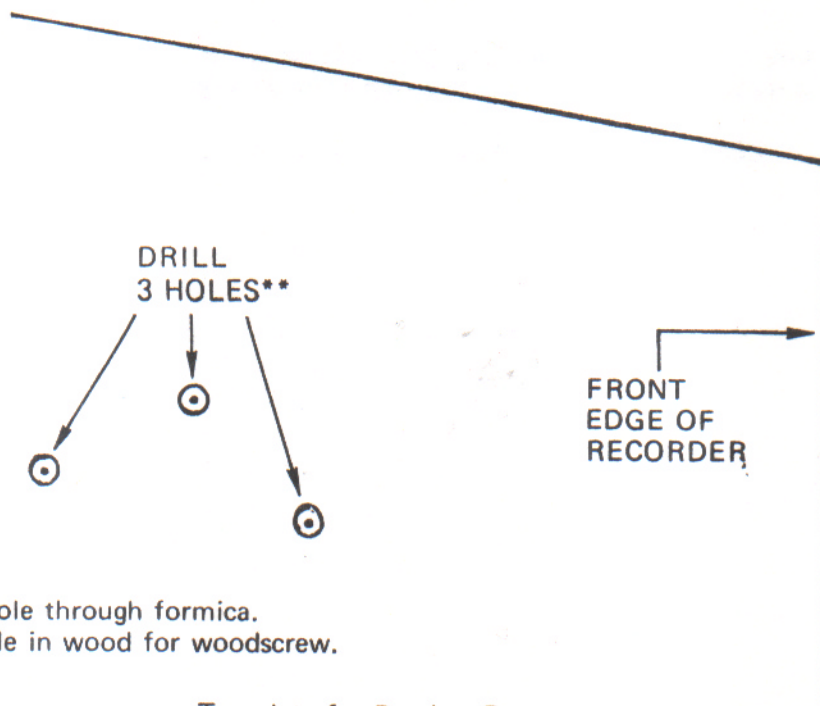
* Supply reel mount is identical to take-up reel mount.



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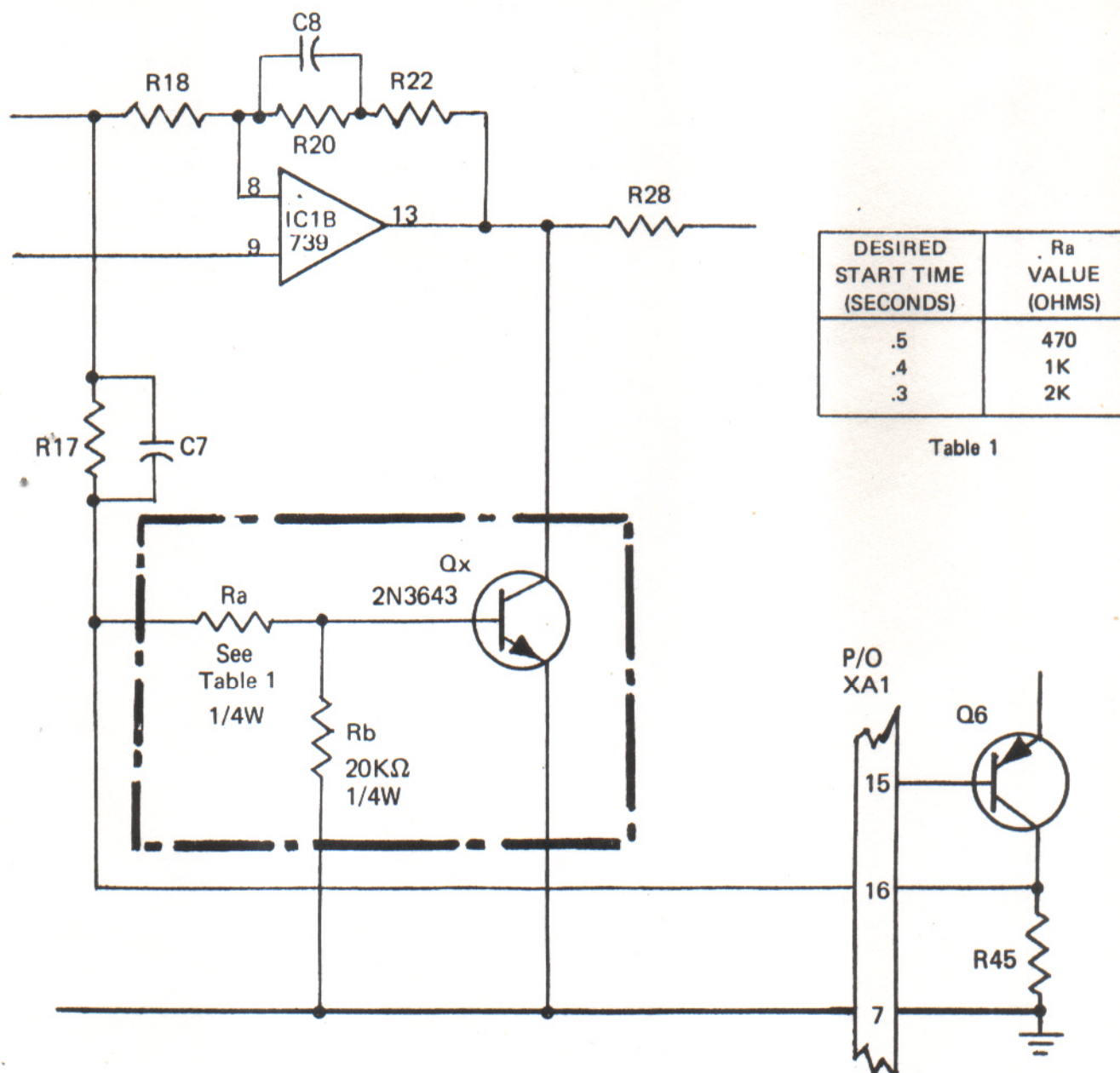


FIGURE 6

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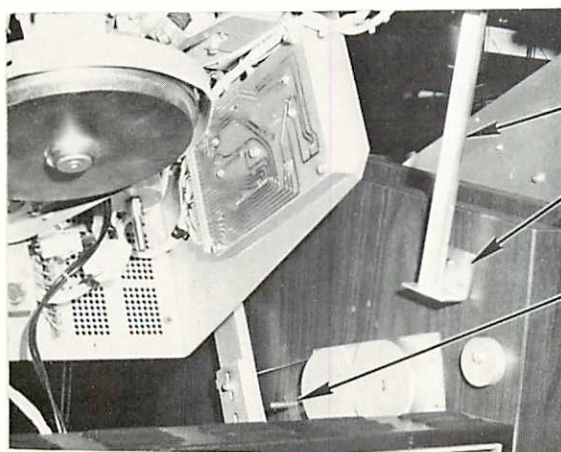
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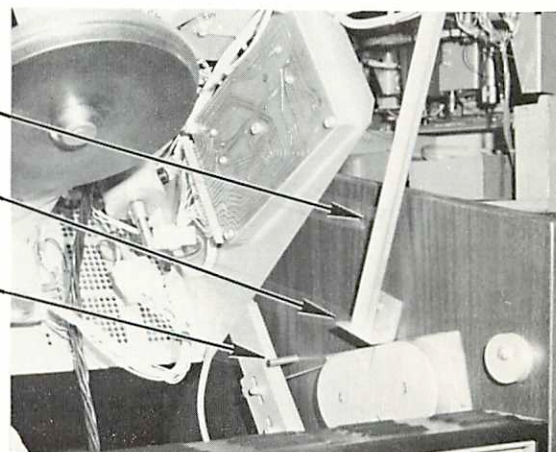
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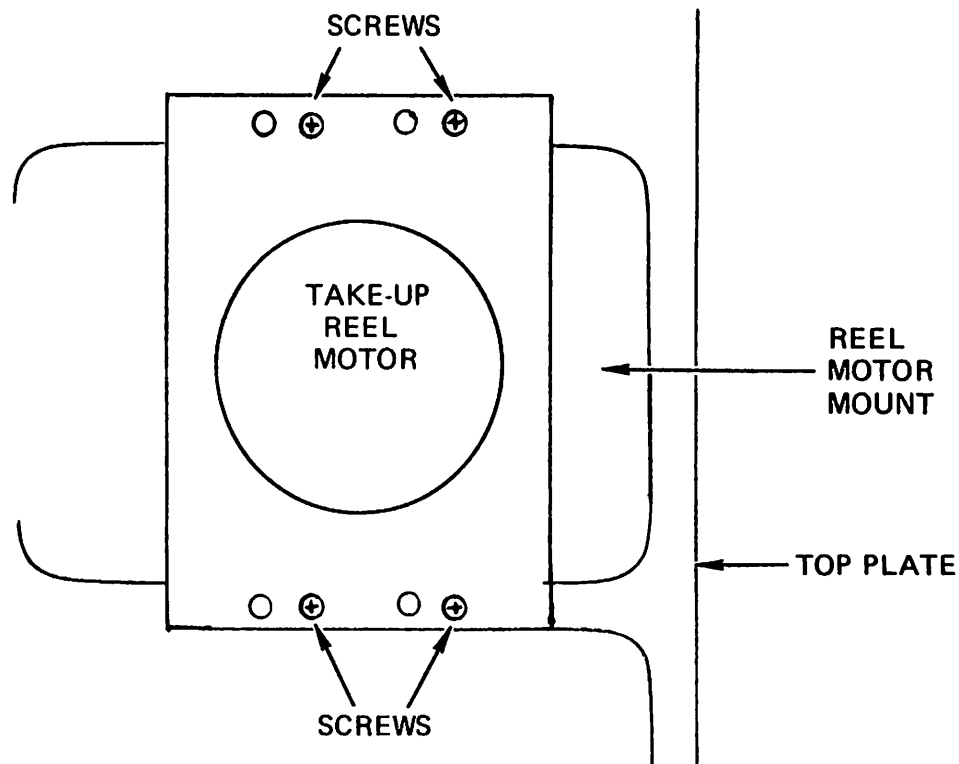


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FIGURE 1



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FIGURE 2

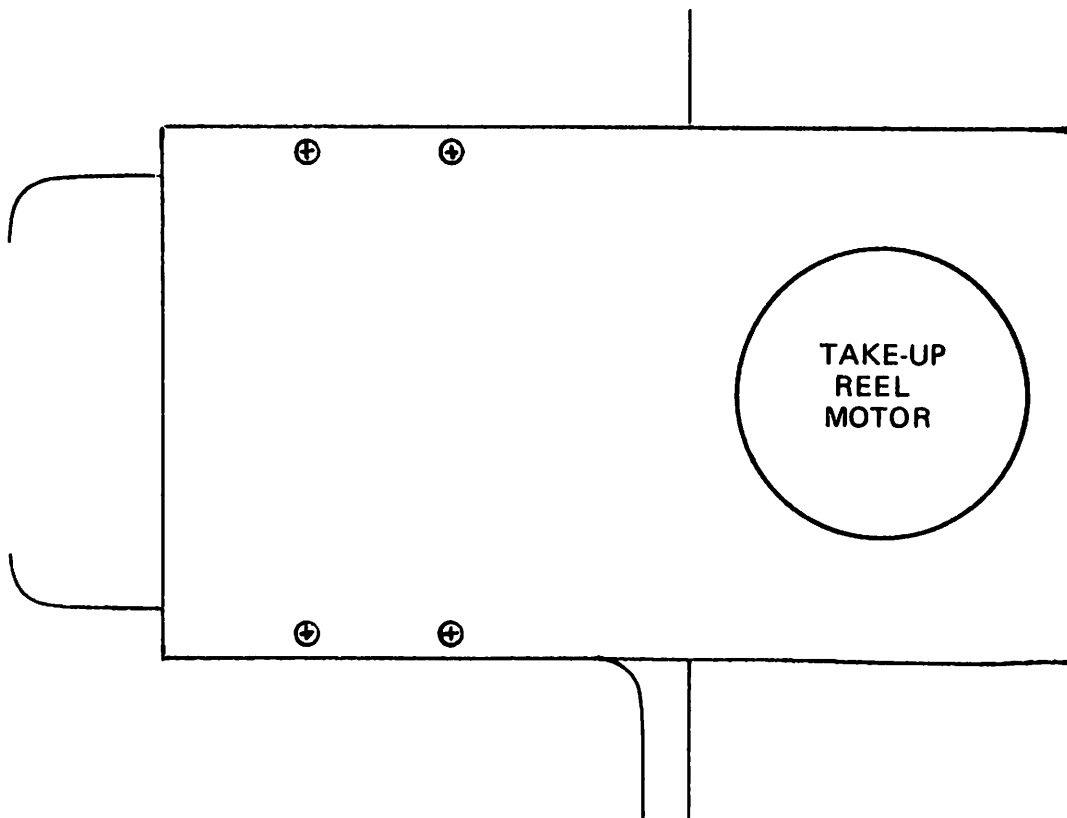
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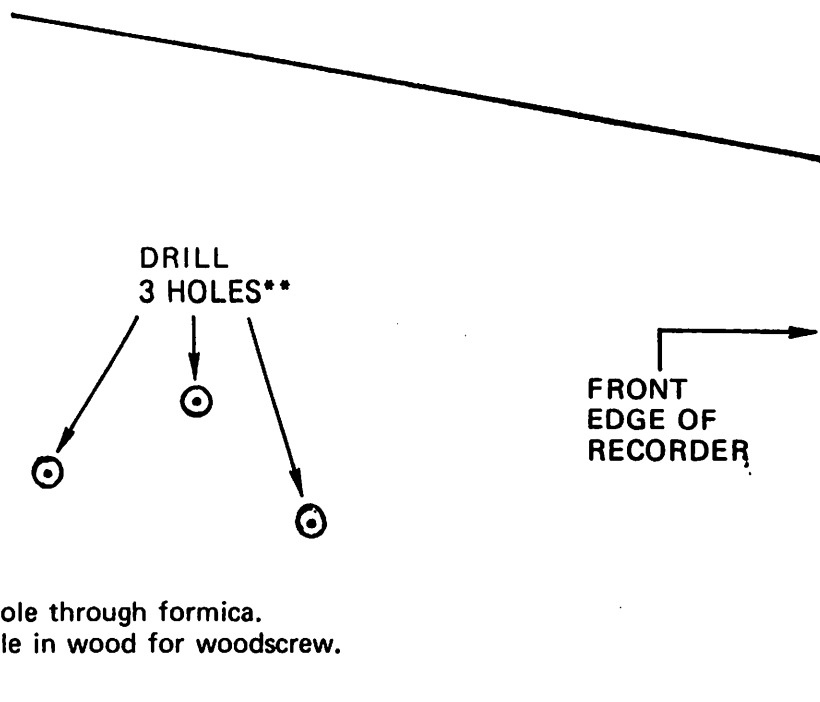
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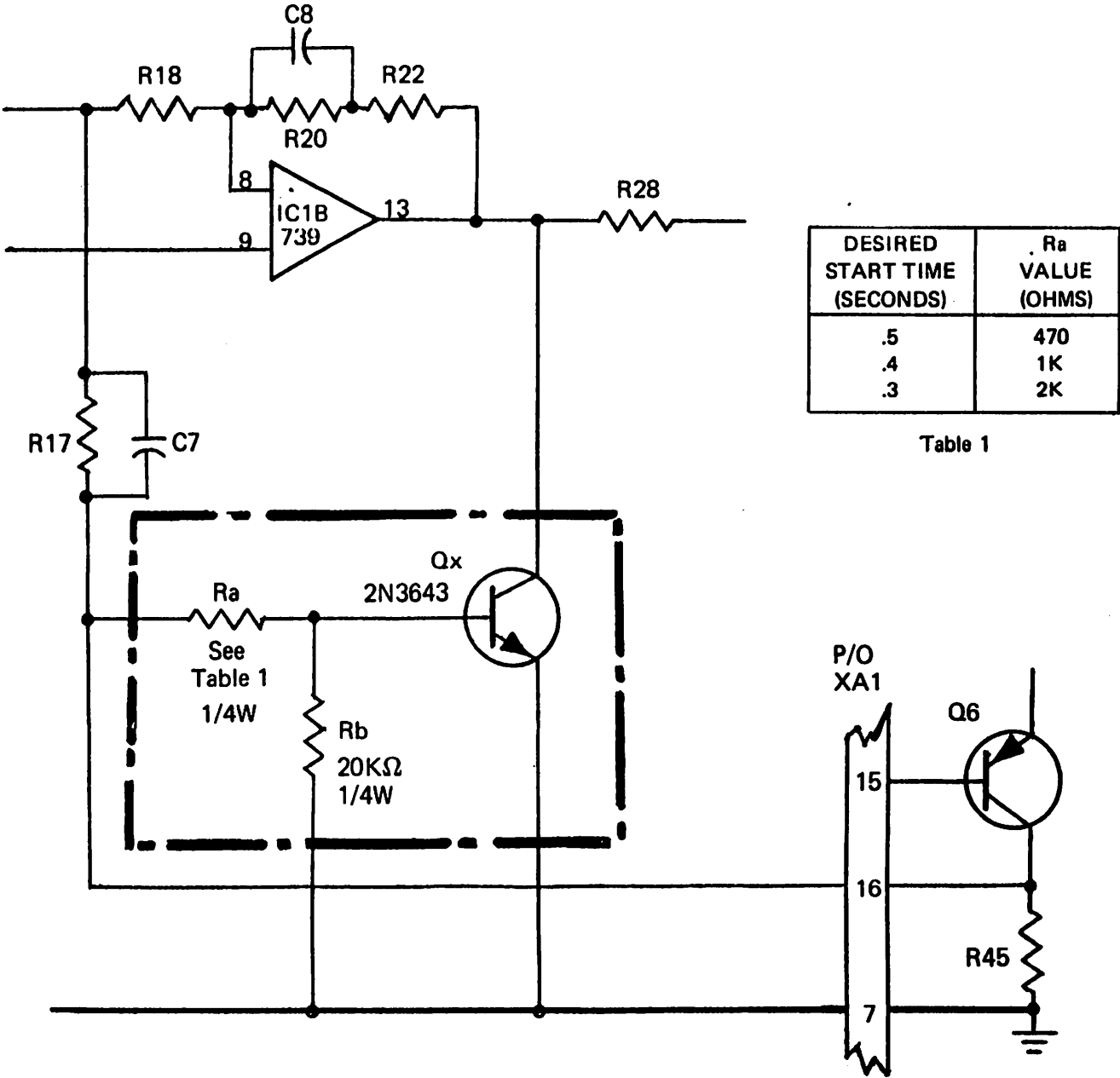


FIGURE 6